AMENDMENTS TO THE CLAIMS

1. (**Currently Amended**) A percutaneous cannula for discharging blood within a patient's vasculature, the cannula comprising:

a main cannula portion comprising a blood flow lumen extending therethrough; and

a tip portion extending from the main cannula portion to a distal end of the cannula, the tip portion comprising:

a discharge opening; and

a redirecting member comprising an expandable member configured to expand under the pressure of the blood flow directed through the discharge opening such that at least a portion of the expandable member is spaced from the discharge opening by a greater amount than prior to such expansion, the expandable member presenting a concave redirecting surface to blood flowing through the discharge opening when expanded, the redirecting member configured to direct blood flow being discharged through the discharge opening proximally along the cannula.

2. (**Canceled**)

3. (**Original**) The cannula of Claim 1, wherein the redirecting member is collapsible to cover the discharge opening during insertion.

4. (**Original**) The cannula of Claim 3, wherein the redirecting member is collapsible to partially cover the discharge opening during insertion.

5. (**Original**) The cannula of Claim 1, wherein the redirecting member is actuatable to a pre-defined shape.

6. (**Original**) The cannula of Claim 1, wherein the tip portion comprises a plurality of discharge openings.

7. (**Original**) The cannula of Claim 6, wherein the tip portion further comprises a plurality of redirecting members configured to direct blood flow being discharged through the discharge openings proximally along the cannula.

8. (**Original**) The cannula of Claim 6, wherein the discharge openings are uniformly spaced radially around the tip portion.

9. (**Original**) The cannula of Claim 6, wherein the blood flow lumen comprises a first blood flow lumen and wherein the main cannula portion further comprises a second blood flow lumen through which blood can be withdrawn from the vasculature.

10. (**Original**) An extracardiac pumping system for supplementing blood circulation in a patient, the extracardiac system comprising:

a pump configured to pump blood at subcardiac flow rates; and

the cannula of Claim 9 fluidly linking the pump to the patient's vasculature.

11. (**Original**) An extracardiac pumping system for supplementing blood circulation in a patient, the extracardiac system comprising:

a pump configured to pump blood at subcardiac flow rates;

an inflow conduit fluidly coupled to the pump and configured to direct blood to the pump from a first vascular site; and

the cannula of Claim 1 fluidly linking the pump to a second vascular site.

12. (**Original**) The cannula of Claim 1, wherein the cannula further comprises a tapered portion proximate the distal end of the cannula.

13. (**Original**) The cannula of Claim 1, further comprising a surface extending across the blood flow lumen, the surface configured to direct blood through the discharge opening.

14. (**Original**) The cannula of Claim 13, wherein a guidewire lumen extends between the surface and the distal end.

15. (**Original**) The cannula of Claim 14, further comprising sealing means configured to minimize the blood flow through the guidewire lumen when the cannula is in operation.

16. (**Original**) The cannula of Claim 15, further comprising a valve located in the guidewire lumen.

17. (**Original**) The cannula of Claim 15, further comprising a plug located in the guidewire lumen.

18. (**Original**) The cannula of Claim 1, further comprising a recess at the distal end of the cannula and configured to receive a guide-member.

19. (**Original**) The cannula of Claim 18, further comprising a guide-member embedded in the recess.

20. (**Original**) The cannula of Claim 19, wherein the blood flow lumen comprises a first blood flow lumen and wherein the main cannula portion further comprises a second blood flow lumen through which blood can be withdrawn from the vasculature.

21. (**Original**) The cannula of Claim 1, further comprising a gap extending between a proximal edge of the redirecting member and a proximal edge of the discharge opening through which blood may flow.

22.-85. (**Canceled**)

86. (**Previously Presented**) The cannula of Claim 1, wherein the expandable member has a distal end and a proximal end adjacent to a proximal end of the discharge opening, the proximal end of the expandable member comprising a continuous perimeter extending substantially entirely around the outside portion of the tip portion.

87. (**Previously Presented**) The cannula of Claim 1, wherein the expandable member has a proximal end with a perimeter, the expandable member having a contracted

configuration in which the perimeter has a first length and an expanded configuration in which the perimeter has a second length, the second length being greater than the first length.

88. **(Previously Presented)** The cannula of Claim 1, wherein the tip portion is configured to direct blood flow in the direction generally opposite to the direction of blood flow in the lumen, and wherein the tip portion further comprises a surface extending across the blood flow lumen to direct blood through the discharge openings.

89. **(Previously Presented)** The cannula of Claim 88, wherein the surface is curved.

90. **(Previously Presented)** The cannula of Claim 89, wherein the surface is spherical or parabolic.

91. **(Previously Presented)** The cannula of Claim 1, where the redirecting member comprises a flap larger than the discharge opening.

92. **(Previously Presented)** The cannula of Claim 91, wherein the redirecting member is collapsible to cover at least a portion of the discharge opening during insertion into the vasculature.

93. **(Previously Presented)** The cannula of Claim 92, wherein a portion of the discharge opening is uncovered when the redirecting member is collapsed.

94. **(Previously Presented)** The cannula of Claim 92, wherein the discharge opening is fully covered when the redirecting member is collapsed.

95. **(Previously Presented)** The cannula of Claim 92, wherein the redirecting member is collapsed onto a surface recessed into the outer wall of the cannula.

96. **(Previously Presented)** The cannula of Claim 1, wherein the redirecting member is expandable to uncover the discharge opening.

97. **(Previously Presented)** The cannula of Claim 96, wherein a distal-to-proximal dimension of the redirecting member is smaller than a distal-to-proximal dimension of the discharge opening.

98. **(Previously Presented)** The cannula of Claim 96, wherein a distal-to-proximal dimension of the redirecting member is approximately equal to a distal-to-proximal dimension of the discharge opening.

99. **(Previously Presented)** The cannula of Claim 7, wherein at least one of the redirecting members comprises an expandable member having a distal end and a proximal end adjacent to a proximal end of a corresponding discharge opening, at least two sides of the expandable member being connected to the tip portion.

100. **(Previously Presented)** The cannula of Claim 99, wherein the expandable member has a proximal end with a perimeter, the expandable member having a contracted configuration in which the perimeter has a first length and an expanded configuration in which the perimeter has a second length, the second length being greater than the first length.

101. **(Previously Presented)** The cannula of Claim 7, wherein the tip portion further comprises a surface extending across the blood flow lumen, the surface configured to direct blood through the discharge openings.

102. **(Previously Presented)** The cannula of Claim 101, wherein the surface is curved.

103. **(Previously Presented)** The cannula of Claim 102, wherein the surface is spherical or parabolic.

104. **(Previously Presented)** The cannula of Claim 1, wherein the main cannula portion is comprised of a first material and the redirecting member is comprised of a second material.

105. **(Previously Presented)** The cannula of Claim 104, wherein the second material comprises silicone.

106. **(Previously Presented)** The cannula of Claim 106, wherein the second material has a hardness of less than about 15 measured on an A scale durometer.

107. **(New)** A percutaneous cannula for discharging blood within a patient's vasculature, the cannula comprising:

a main cannula portion comprising a blood flow lumen extending therethrough; and

a tip portion extending from the main cannula portion to a distal end of the cannula, the tip portion comprising:

a discharge opening having a first area; and

a redirecting member with at least a portion configured to expand under the pressure of the blood flow directed through the discharge opening, the redirecting member configured to direct blood flow being discharged through the discharge opening proximally along the cannula; and

wherein the portion of the redirecting member that expands presents a second area greater than the first area when expanded.

108. **(New)** The percutaneous cannula of Claim 107, wherein the portion of the redirecting member that expands has a proximal end with a perimeter, the expandable member having a contracted configuration in which the perimeter has a first length and an expanded configuration in which the perimter has a second length, the second length greater than the first length.

109. (**New**) The percutaneous cannula of Claim 107, wherein the portion of the redirecting member that expands extends continuously around the outside perimeter of the tip portion.

SUMMARY OF INTERVIEW

In Attendance

1) Examiner Christopher Koharski

2) Tony Viole, Director of Product Development & Operations, Orqis Medical Corporation

3) Andrew M. Douglas, Registration Number 51,212

Exhibits and/or Demonstrations

Presentation illustrating actuation of redirecting member; physical model of device

Identification of Claims Discussed

Claim 1

Identification of Prior Art Discussed

Berry (U.S. Patent No. 6,293,598);

Shmulewitz (U.S. Patent No. 6,569,145)

Lindsay (U.S. Patent No. 5,616,137)

Mische (U.S. Patent No. 6,800,075)

Proposed Amendments

Discussed amending Claim 1 to further distinguish over cited references.

Principal Arguments and Other Matters

No arguments presented. Interview was in the nature of a discussion of claim amendment options as mentioned above.

Results of Interview

No agreement on the claims was reached.